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Esta edición de eJournalUSA explora la manera que en la ciencia se práctica en el siglo XXI, en cómo el Internet y otras tecnologías ayudan a configurar las preguntas que se plantean los científicos; la manera en que los científicos interactuan y comparten nuevos conocimientos. También destaca algunos de los destacados progresos ya logrados por jóvenes científicos para comprender la génesis de las enfermedades, nuestro lugar en el universo y los circuitos que movilizan el cerebro. Esos logros científicos amplían el

horizonte del conocimiento humano y prometen servir para mejorar la vida de la gente hoy y del futuro por mucho tiempo.

http://photos.state.gov/libraries/amgov/30145/publicationsspanish/1301 Ej ScienceNewFornteir Spanish Digital.pdf

Gregory Mone. WATER WORLDS: THE PROSPECTS FOR HARVESTING WATER FROM MOONS, PLANETS, AND ASTEROIDS (Discover Magazine online, March, 2013)

Scientists have found increasing evidence of water on numerous moons, planets, and asteroids in recent years--an encouraging trend for those who see the familiar substance as the backbone of a future space-based economy.

See: http://discovermagazine.com/2013/march/3-water-worlds

Cars, Trucks, and Climate: EPA Regulation of Greenhouse Gases from Mobile Sources.

Congressional Research Service, Library of Congress. James E. McCarthy and Brent D. Yacobucci. February 14, 2013.

On October 15, 2012, the Obama Administration took a major step toward reducing greenhouse gas (GHG) emissions from motor vehicles when it promulgated GHG emission standards for model year 2017-2025 light duty vehicles. Under the standards, GHG emissions from new cars and light trucks will be reduced about 50% by 2025 compared to 2010, and average fuel economy standards will rise to nearly 50 miles per gallon. EPA had previously set GHG emission standards for MY2012-2016 vehicles as well as for 2014-2018 model year medium- and heavy-duty trucks. These steps have been taken as the Congress (particularly the House) and the Administration have reached an impasse over climate issues. The Administration has made clear that its preference would be for Congress to address the climate issue through new legislation. Nevertheless, in the wake of a 2007 Supreme Court decision, it has moved forward on several fronts to define how the Clean Air Act will be used and to promulgate regulations. The key to using the CAA's authority to control greenhouse gases was for the EPA Administrator to find that GHG emissions are air pollutants that endanger public health or welfare.

http://www.fas.org/sgp/crs/misc/R40506.pdf [PDF format, 22 pages, 383.85 KB].

Anthony J. Sadar. **CLIMATE CHANGE IN PERSPECTIVE** (American Thinker, February 25, 2013)

Sadar is a climate change skeptic who calls in this article for a fuller understanding of the data before moving on to political policy-making. "With the fanfare of released official weather records for 2012," Sadar writes, "comes the usual claims of 'warmest this' and 'historic extreme that.' But, facts are stubborn things." He goes on to challenge some of the numbers offered by those who make those claims. (JAM)

See: http://www.americanthinker.com/blog/2013/02/climate change in perspective.html

Joseph Stromberg. **CLIMATE CHANGE IS REDUCING OUR ABILITY TO GET WORK DONE** (Smithsonian.com, February 25, 2013)

The author contends that "climate change is projected to increase the average humidity of Earth as well as its temperature, and you could have a recipe for a rather unexpected consequence of greenhouse gas emissions: a reduced overall ability to get work done."

See: http://blogs.smithsonianmag.com/science/2013/02/climate-change-is-reducing-our-ability-to-get-work-done/

Natural Disasters as Threats to Peace. U.S. Institute of Peace. Frederick S. Tipson. February 2013.

As natural disasters and extreme environmental events increase in severity, it is time to consider how vulnerabilities brought on by population growth, urbanization, economic fragility, and climate change could lead to deadly conflict. The report argues that policymakers should look beyond the familiar, more imminent threats and make plans to deal with the natural security implications of less likely but higher impact scenarios.

http://www.usip.org/files/resources/Natural%20Disasters%20as%20Threats%20to%20Peace% 20SR324.pdf [PDF format, 17 pages, 871.74 KB].

The Role of Local Institutions in Adaptive Processes to Climate Variability: The cases of southern Ethiopia and southern Mali. Oxfam International. Todd A. Crane. February 8, 2013.

Farmers and herders in arid regions of Africa face serious challenges in adapting to climate change and variability. They are highly exposed to climate stresses, especially drought, but adaptation to climate change is far from being a clear-cut biophysical or technical problem: it is also a social challenge. Although communities in semi-arid zones have organized their cultures and livelihoods around uncertainty and the risk of drought, climate predictions indicate that new extremes will be a real challenge to their capacity to adapt. This report looks at the role of local social institutions in Ethiopia and Mali and their role in adaptation.

http://www.oxfam.org/sites/www.oxfam.org/files/rr-local-institutions-adaptive-climate-ethiopia-mali-080213-en.pdf [PDF format, 34 pages, 405.53 KB].

Building on President Obama's Clean Energy Successes. Center for American Progress. Daniel J. Weiss and Jackie Weidman. January 17, 2013.

Many of the top energy and environmental priorities for President Obama's second term, should reduce industrial carbon pollution by boosting investments in clean energy technologies, protect public health by reducing pollution from the largest emitters, and help communities cope with the increase in frequency and severity of extreme weather events linked to climate change, according to the report. It also provides the top 10 energy and environmental priorities for President Obama's second term.

http://www.americanprogress.org/wp-content/uploads/2013/01/WeissSecondTermPriorities-2.pdf [PDF format, 11 pages, 155.49 KB].

Greenprint: Three Big Changes for Countries to Cooperate on Climate Change. Center for Global Development. Aaditya Mattoo and Arvind Subramanian. January 22, 2013.

Few problems are as pressing and as existential for the world as climate change, and few have proven to be as intractable. Three decades of international negotiations on climate change

have yielded little by way of action that would substantially slow, let alone reverse, human-caused climate change. Can things be different?.

http://www.cgdev.org/files/1426895 file Mattoo Subramanian Greenprint brief WEB.pdf [P DF format, 4 pages, 761 KB].

The Hidden Global Trade in Water. YaleGlobal. Jenny Kehl. February 13, 2013.

Water seems plentiful, but less than 3 percent of the Earth's supply is fresh water, much of it polar ice. Agriculture represents about 70 percent of the globe's annual water use. Exporting water-intensive crops like cotton produced in arid nations is essentially trading an essential resource away, resulting in net losses for water-scarce nations. Subsidies for water and agriculture, cross-border trade, short-term profits and a lack of economic planning contribute to a lack of awareness about the massive, invisible trade in water. "This trade could be reorganized for water-scarce regions to become virtual water importers, a reversal of their current net water loss, and water-rich regions to become virtual water exporters," explains Jenny Kehl. "The reality is that it takes more water overall to produce water-intensive crops in water-scarce regions." Transparency, calculation of water uses, could improve national policies on trade and agriculture, promoting sustainability and food security.

http://yaleglobal.yale.edu/content/hidden-global-trade-water [HTML format, various paging].

Clicks into Bricks, Technology into Transformation, and the Fight Against Poverty. Brookings Institution. Laurence Chandy et al. February 2013.

The last century has witnessed dramatic global improvements in the quality of life. Many of these improvements can be attributed to the discovery and spread of new technologies and ideas, ranging from vaccines and antibiotics, to improved hygiene, to the agricultural reforms of the Green Revolution. Today there is growing excitement about a new set of technologies that could further improve the lives of poor people around the world. Mobile technology is giving poor people the capacity to use their cell phones to send, receive and store money. Connection technologies such as open source software have allowed people in Haiti and Pakistan to collect and analyze information about, and then respond to, violence, corruption and natural disasters. "Green growth" innovations are expanding access to electricity and increasing agricultural yields around the globe while also reducing harmful emissions.

http://www.brookings.edu/~/media/Research/Files/Reports/2013/02/brookings%20blum%20roundtable/02%20brookings%20blum%20roundtable.pdf [PDF format, 56 pages, 3.4 MB].

Country Analysis Briefs: Saudi Arabia. U.S. Energy Information Administration. February 11, 2013.

Saudi Arabia was the world's largest producer and exporter of total petroleum liquids in 2012, the world's largest holder of crude oil reserves, and the world's second largest crude oil producer behind Russia. Saudi Arabia's economy remains heavily dependent on petroleum. Petroleum exports accounted for almost 90 percent of total Saudi export revenues in 2011, according to the Organization of the Petroleum Exporting Countries (OPEC)'s *Annual Statistical*

Bulletin 2012. Saudi Arabia has been shifting its focus beyond increasing oil production capacity after state-owned oil company Saudi Aramco reached its target of 12 million barrels per day in 2009. With the near-completion of its largest oil projects, Saudi Arabia is expanding its natural gas, refining, petrochemicals, and electric power industries.

http://www.eia.gov/countries/analysisbriefs/Saudi Arabia/saudi arabia.pdf [PDF format, 14 pages, 418.03 KB].

The Endangered Species Act and "Sound Science" Congressional Research Service, Library of Congress. M. Lynne Corn et al. January 23, 2013.

The adequacy of the science supporting implementation of the Endangered Species Act (ESA) has received considerable congressional attention over the years. While many scientific decisions pass unremarked, some critics accuse agencies responsible for implementing the ESA of using "junk science," and others counter that decisions that should rest on science are instead being dictated by political concerns. Under the ESA, certain species of plants and animals (both vertebrate and invertebrate) are listed as either *endangered* or *threatened* according to assessments of the risk of their extinction. Once a species is listed, powerful legal tools are available to protect the species and its habitat.

https://www.fas.org/sgp/crs/misc/RL32992.pdf [PDF format, 33 pages, 381.12 KB].

Outcome Evaluation of U.S. Department of State Support for the Global Methane Initiative. RAND Corporation. Nicholas Burger et al. January 30, 2013.

Methane is a short-lived greenhouse gas that is released during the production and transport of coal, natural gas, and oil; the raising of livestock and other agricultural practices; and the decay of organic waste in municipal solid waste landfills and some wastewater treatment systems. Although it is short-lived, methane has more than 20 times the atmospheric warming effect of carbon dioxide. The Global Methane Initiative (GMI) is a voluntary international partnership that promotes methane recovery and reuse activities in developing and transition economies. The U.S. Department of State requested an evaluation of the activities and outcomes supported in whole or in part by its contributions to GMI to gauge its value added to the program.

http://www.rand.org/content/dam/rand/pubs/technical_reports/TR1200/TR1250/RAND_TR12 50.pdf [PDF format, 100 pages, 0.6 MB].